

***Detailed Action***

Applicant's amendment filed on 02-03-2010 has been entered. Claims 1-41 are currently pending. Claims 18, 21, 32 and 36 has been amended by Applicant's amendment filed on 02-03-2010. Claims 1-17, 20, 23-26 and 28-30 were previously withdrawn from consideration as being directed to non-elected inventions pursuant to 37 CFR 1.14(b), there being no allowable generic or linking claim.

Applicant's representative was contacted on April 19, 2008 to point out that amended claims 18, 21, 32 and 36 will raise potential issues of rejection under 35 USC § 112-enablement and suggested to amend the claims before allowance as follows: claims 18, 21, 32 and 36 to recite the phrase "injecting to the lateral ventricle of the brain" and to delete the word "administering" and further to cancel claims 1-17, 20, 23-26, 28-30 and 38-41.

Authorization for the examiner's amendment was given in a telephone interview with Mary Anne Puglielli, Registration No.52,138 on April 23, 2010.

With respect to the proposed claims, an examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it must be submitted no later than the payment of the issue fee.

***EXAMINER'S AMENDMENT***

***In the claims,***

1) Claims 1-17, 20, 23-26, 28-30 and 38-41 have been cancelled without prejudice or disclaimer.

2) Claims 18, 21, 32 and 36 have been rewritten as follows:

**18.** A method for enhancing *in vivo* proliferation of neural stem cells in a vertebrate, comprising injecting to the lateral ventricle of the brain of the vertebrate an effective amount of Galectin-1, wherein administration of the effective amount of Galectin-1 enhances proliferation of neural stem cells.

**21.** A method for enhancing *in vivo* proliferation of subventricular zone (SVZ) astrocytes in a vertebrate, comprising injecting to the lateral ventricle of the brain of the vertebrate an effective amount of Galectin-1, wherein administration of the effective amount of Galectin-1 enhances proliferation of SVZ astrocytes.

**32.** A method for treating a patient with a neurological disorder, comprising enhancing *in vivo* proliferation of neural stem cells in the patient by injecting to the lateral ventricle of the brain of the patient an effective amount of Galectin-1, wherein administration of the effective amount of Galectin-1 enhances proliferation of neural stem cells.

**36.** A method for treating a patient with a neurological disorder, comprising enhancing *in vivo* proliferation of SVZ astrocytes in the patient by injecting to the lateral ventricle of the brain of the patient an effective amount of Galectin-1, wherein administration of the effective amount of Galectin-1 enhances proliferation of SVZ astrocytes.

***Reasons for allowance***

The following is an examiner's statement of reasons for allowance: The prior art of record does not teach or suggest a method for enhancing *in vivo* proliferation of neural stem cells in a vertebrate, comprising injecting to the lateral ventricle of the brain of the vertebrate an

effective amount of Galectin-1 wherein administration of the effective amount of Galectin-1 enhances proliferation of neural stem cells.

The closest prior art of Horie et al., (US Patent 6,890,531, Date of Issue May 10, 2005) does not teach or suggest injecting to the lateral ventricle of the brain of the vertebrate an effective amount of Galectin-1 wherein administration of the effective amount of Galectin-1 enhances proliferation of neural stem cells.

***Withdrawn rejections in response to Applicant arguments or amendments***

The previous rejection of claim 5 under 35 U.S.C. § 112, second paragraph, and rejection of claims 1-9 and 12-16 and claims 26-33 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement have been withdrawn in view of Applicants' amendment to claims 1, 5, 7, 26, 27 and 29 to delete the terms "pathogenic" and "substantially". In addition rejection of claim 26 under 35 U.S.C. 112, second paragraph, for failing to provide proper antecedent bases for the phrase "the detection of the presence" has been withdrawn as proper antecedent for the recitation of is found in claim 1 subpart c).

Additionally, the objection to claim 27 under 37 CFR 1.121(c) for failing to be identified with the proper status in the claim listing has been withdrawn.

***Claim Rejections - 35 USC § 103***

The previous rejection of claims **18, 19, 27 and 31- 35** under 35 USC § 103 as being unpatentable over Horie et al., (US Patent 6,890,531, Date of Issue May 10, 2005) has been withdrawn in view of Applicants' amendment.

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The previous rejection of claims **21, 22, 36 and 37** under 35 USC § 103 as being unpatentable over Horie et al., (US Patent 6,890,531, Date of Patent May 10, 2005) in view of Gage et al., US Patent No. 6,436,389 (Date of Issue August 20, 2002) or Taupin et al., (Neuron, 2000, pp. 385-397) has been withdrawn in view of Applicants' amendment.

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The previous rejection of claims **18, 21, 32, 36, 38, 39, 40 and 41** under 35 USC § 103 as being unpatentable over Horie et al., (US Patent 6,890,531, Date of Patent May 10, 2005) in view of Johansson et al., (1999, Experimental cell research pp. 733-736) has been withdrawn in view of Applicants' amendment.

***Claim Rejections - 35 USC § 112- Second Paragraph***

In view of Applicants' amendment of claims 18, 21, 32 and 36, rejection of claims 18, 19, 21, 22, 31, 32-41 are rejected under 35 U.S.C. 112, second paragraph, has been withdrawn.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

Claims 18, 19, 21, 22, 27 and 31-37 are allowable

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Leavitt whose telephone number is 571-272-1085. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Woitach, Ph.D can be reached on (571) 272-0739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group Art Unit 1633; Central Fax No. (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Maria Leavitt/

Maria Leavitt  
Primary Examiner, Art Unit 1633